

**LaserMemory**

# DRM-5004X

CD-ROM CHANGER  
CHANGEUR DE CD-ROM  
CD-ROM WECHSLER  
CD-ROM チェンジャー

COMPACT  
**disc**  
DIGITAL AUDIO

- 本製品が外国為替及び外国貿易管理法に定める戦略物資(又は、役務)に該当する場合は、輸出する際に同法に基づく輸出許可が必要となります。

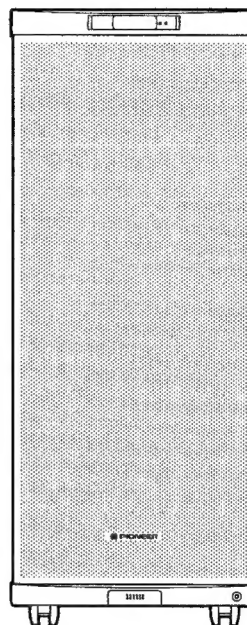
**WARNING:** TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

**IMPORTANT NOTICE:**  
RECORD THE MODEL NUMBER AND SERIAL NUMBER OF THIS EQUIPMENT BELOW. THE NUMBERS ARE ON THE REAR PANEL.

MODEL NO. DRM-5004X

SERIAL NO. \_\_\_\_\_

KEEP THESE NUMBERS FOR FUTURE USE.



English

Français

Deutsch

日本語

## 安全のために！

本文中に記載されているこの表示は、誤った使い方をした場合、あなたや他の人々に危険をおよぼすおそれのあることについて書かれています。  
注意深くお読みください。

## IMPORTANT



The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

### CAUTION

RISK OF ELECTRIC SHOCK  
DO NOT OPEN

#### CAUTION:

TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## IMPORTANT

If the apparatus is fitted with AC mains power outlet(s), see REAR PANEL FACILITIES for convenient connection of additional Hi-Fi component(s). Make all connections to the AC outlet(s) and the signal terminals first. Connect the plug to the wall socket last (make sure that the power switch is off.)

**THIS APPARATUS MUST BE EARTHED**

## FOR USE IN THE UNITED KINGDOM

The wires in this mains lead are coloured in accordance with the following code:

Green- and- Yellow: Earth  
Blue: Neutral  
Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured marking identifying the terminals in your plug proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol or coloured green or green-and-yellow.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Equipment sold in the U.K. is not supplied with a power plug.

**CAUTION 1: USE OF CONTROL OR ADJUSTMENT OR PERFORMANCE PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.**  
**CAUTION 2: USE OF OPTICAL INSTRUMENTS WITH THIS PRODUCT WILL INCREASE EYE HAZARDS.**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**FOR ENGLAND**

*"This product complies with the Radio Interference requirements of the EC (European Community) Directive 87/308/EEC."*

**FOR GERMANY**

*"Dieses Produkt entspricht den Funkkennstörvorschriften der EG (87/308/EEC)."*

**FOR FRANCE**

*"Cet article est conforme aux prescriptions de la directive communautaire de la CE nr. 87/308/EEC (arrêté du 16/8/89)."*

**FOR ITALY**

*"Questo apparato è conforme al D.M. 13 Apr. 89 (Dir. 87/308/CEE)."*

**FOR SPAIN**

*"Este aparato cumple las normas para Interferencias de Radio establecidas por la Directriz de la CE (87/308/EEC)."*

**FOR PORTUGAL**

*"Este produto satisfaz às exigências das normas sobre interferências de rádio da Comunidade Económica Europeia (87/308/EEC)."*

**FOR BELGIUM AND NETHERLANDS**

*"Dit produkt voldoet aan de radio-ontstoringsvoorschriften van de Richtlijn van de EG Raad (87/308/EEC)."*

**FOR DENMARK**

*"Dette produkt overholder det gældende EF-direktive no. 87/308/EEC vedr. radiostøj."*

**WARNING !**

Om apparaten används på annat sätt än i denna bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning som överskrider gränsen för laserklass 1.

**ADVARSEL :**

Usynlig laserstråling ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

**VAROITUS !**

Laitteen käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

**[For Canadian model]**

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

**[Pour le modèle Canadien]**

L'interférence, radioélectrique générée par cet appareil numérique de type A ne dépasse pas les limites énoncées dans le Règlement sur les perturbations radioélectriques, section appareil numérique, du Ministère des Communications.

Thank you for buying this PIONEER product.  
Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.

In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

## CONTENTS

IMPORTANT ! SAFETY INSTRUCTIONS .....	3	INSTALLING/REMOVING THE DISC MAGAZINE ...	8
FEATURES .....	4	INSERTING DISCS INTO THE DISC MAGAZINE ...	9
PRECAUTIONS .....	4	MOVING OR TRANSPORTING THE UNIT .....	9
INSTALLATION .....	4	TROUBLESHOOTING .....	11
PANEL FACILITIES .....	6	SPECIFICATIONS .....	12

## IMPORTANT! SAFETY INSTRUCTIONS

1. **READ INSTRUCTIONS** — All the safety and operating instructions should be read before the appliance is operated.
2. **RETAIN INSTRUCTIONS** — The safety and operating instructions should be retained for future reference.
3. **HEED WARNINGS** — All warnings on the appliance and in the instructions should be adhered to.
4. **FOLLOW INSTRUCTIONS** — All operating and use instructions should be followed.
5. **CLEANING** — Unplug this product from the wall outlet before cleaning.  
Do not use liquid cleaners or aerosol cleaners.  
Use a damp cloth for cleaning.
6. **WATER AND MOISTURE** — Do not use this product near water.
7. **ACCESSORIES** — Do not place this product on an unstable cart, stand, or table.  
The product may fall and be seriously damaged.
8. **VENTILATION** — Slots and openings in the cabinet and back or bottom are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. They should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed in a built-in installation unless proper ventilation is provided.
9. **POWER SOURCES** — This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
10. **PLUG** — This product is equipped with a wired grounding-type plug (a plug having a third (grounding) pin). This plug will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.
11. **POWER-CORD PROTECTION** — When unplugging the apparatus, pull on the plug — not on the cord. Do not handle the cord on plug with wet hands. Doing so could cause an electric short or shock. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
12. **OVERLOADING** — Do not overload wall outlets and extension cords as this can result in fire or electric shock.
13. **OBJECT AND LIQUID ENTRY** — Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
14. **CONDENSATION** — Moisture will form in the operating section of the product and the product's performance will be impaired if the product is brought from cool surroundings into a warm room or if the room temperature rises suddenly. To prevent this, let the product stand in its new surroundings for about an hour or two before switching it on, or ensure that the room temperature rises gradually.
15. **SERVICING** — Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
16. **DAMAGE REQUIRING SERVICE** — Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - a. When the power cord or plug is damaged.
  - b. If liquid has been spilled, or objects have fallen into the product.
  - c. If the product has been exposed to rain or water.
  - d. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
  - e. If the product has been dropped or the cabinet has been damaged.
  - f. When the product exhibits a distinct change in performance — this indicates a need for service.

### Information to User

Alteration or modifications carried out without appropriate authorization may invalidate the user's right to operate the equipment.

**CAUTION:** This product satisfies FCC regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances such as radios and televisions, use shielded cables and connectors for connections.

### [FOR EUROPEAN AND U.K. MODELS]

#### CAUTION

This product contains a laser diode of higher class than 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel.

The following caution label appears on your changer.

Location: On the rear panel of the changer.

**CLASS 1 LASER PRODUCT  
LASER KLASSE 1**

ORW1129

## FEATURES

This unit is an auto changer for exclusive use of CD-ROM and ordinary digital audio compact discs (12cm/5-inch). 8cm/3-inch discs and CD-I discs cannot be used.

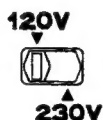
- Equipped with 2 quadruple-speed CD-ROM drives.
- Can accommodate up to 500 CD-ROM and ordinary digital audio compact discs (12cm).
- Can accommodate 2 extra CD-ROM drives (4 drives in total).

## PRECAUTIONS

### LINE VOLTAGE SELECTOR SWITCH

There are 2 types of changers — an AC 100V exclusive-use type and a line voltage selector type. The latter type has a voltage selector switch on the rear panel. Set the voltage switch to the voltage available in the region the unit will be used. (Make sure the power plug is removed from the power outlet when you set the voltage switch.)

120V: AC 100V — 120V regions  
230V: AC 220V — 240V regions



### POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

### MAINTENANCE

Wipe the cabinet and panel surface with a soft, dry cloth. For hard-to-remove dirt, dip a soft cloth in a solution of 5 — 6 parts water and 1 part neutral detergent, wring out all excess moisture, and wipe off the dirt. Afterwards, remove any moisture by wiping with a dry cloth.

Do not use benzene, thinner, pesticide, or other volatile chemicals, for these can damage the rear panel. If a chemical cloth is used, carefully read the cautions that come with the chemical cloth.

- Comes with a disc magazine that allows installation/removal of discs in units of 100.
- The changer controller and the built-in CD-ROM drive are connected by a daisy-chain.
- Can also accommodate future, writable CD-R drives.

## INSTALLATION

### ⚠ WARNING

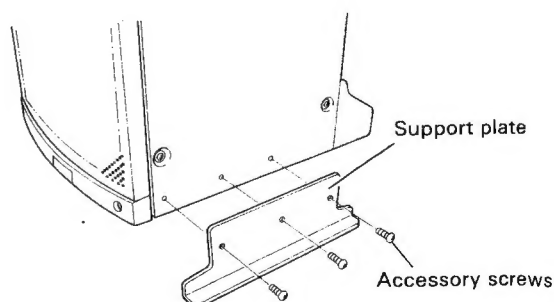
- **Stacking units is extremely dangerous from the standpoint of strength and should be avoided under all circumstances.**

- **Select an installation location that satisfies the following conditions:**

- ① The floor is horizontal and sturdy.
- ② The space is free of moisture and humidity and it is not excessively dusty.
- ③ The location is not in direct sunlight (including reflections from glass and other surfaces) or in the path of a spotlight or other strong light.
- ④ There is no vibration or danger of impact.
- ⑤ The unit is not near an air conditioner, refrigerator, or other source of heavy-duty wiring, nor is it near a motor, rheostat, etc.
- ⑥ The temperature during operation of the unit remains between 5 °C (41 °F) and 40 °C (104 °F).
- ⑦ The location facilitates the performance of maintenance work.

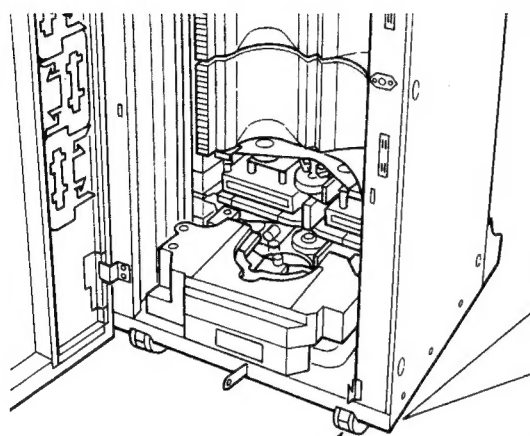
When the unit is installed near a wall, leave a space between the rear of the unit and the wall so that the back of the unit can be reached.

**To prevent the unit from falling over, attach the specially provided support plates to the bottom of the unit on both the left and right sides.**



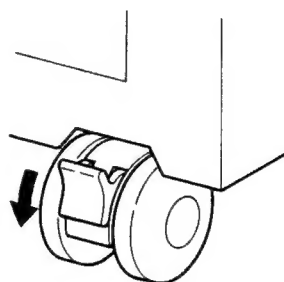
When the unit has been installed, do not fail to lock the casters. The casters cannot be locked unless the door is open. (Refer to Page 8 for how to open the front door.)

If you are having difficulty locking the casters, cause the wheels to turn slightly.

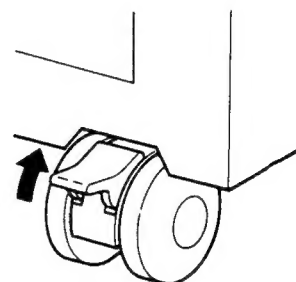


The lock mechanism is on this caster only.

Lowering the lever locks the caster.



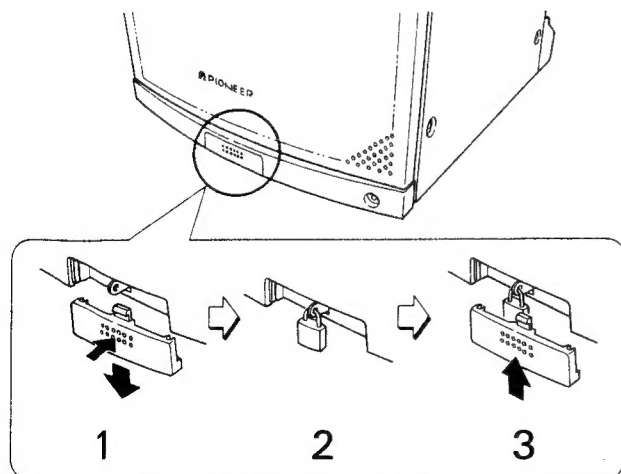
Raising the lever releases the lock.



## Attaching a padlock for theft prevention

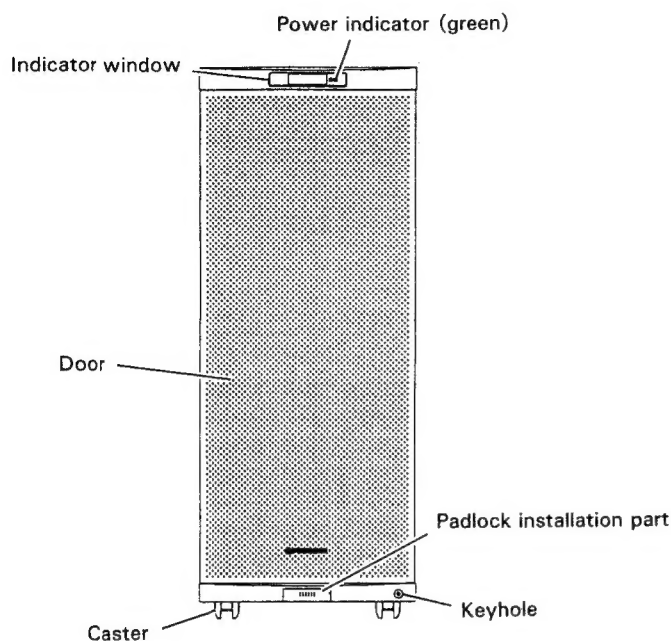
The unit accommodates a padlock, which can be purchased on the market.

1. Remove the bottom front lid.
2. Attach a padlock through the keyholes.
3. Attach the lid.

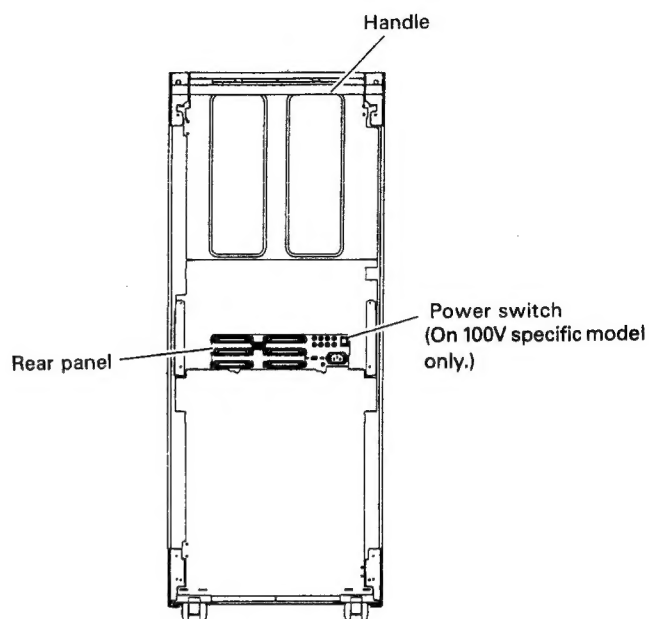


# PANEL FACILITIES

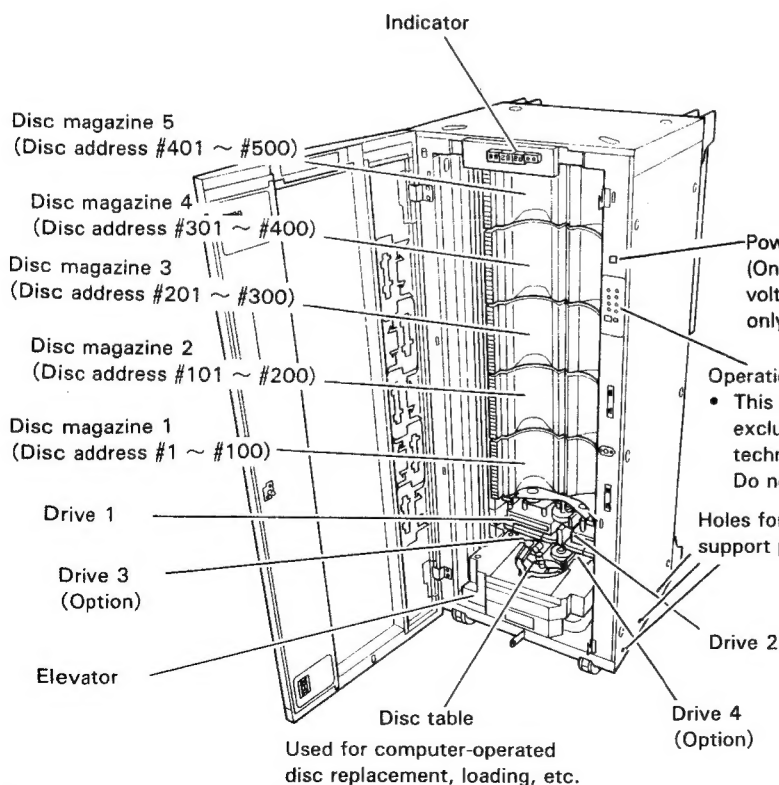
## [ Front Panel ]



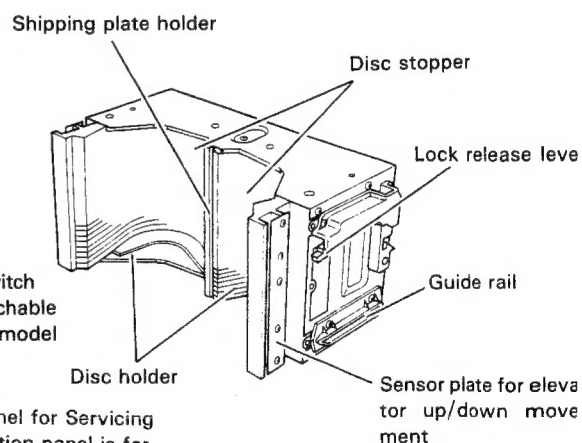
## [ Rear Panel ]

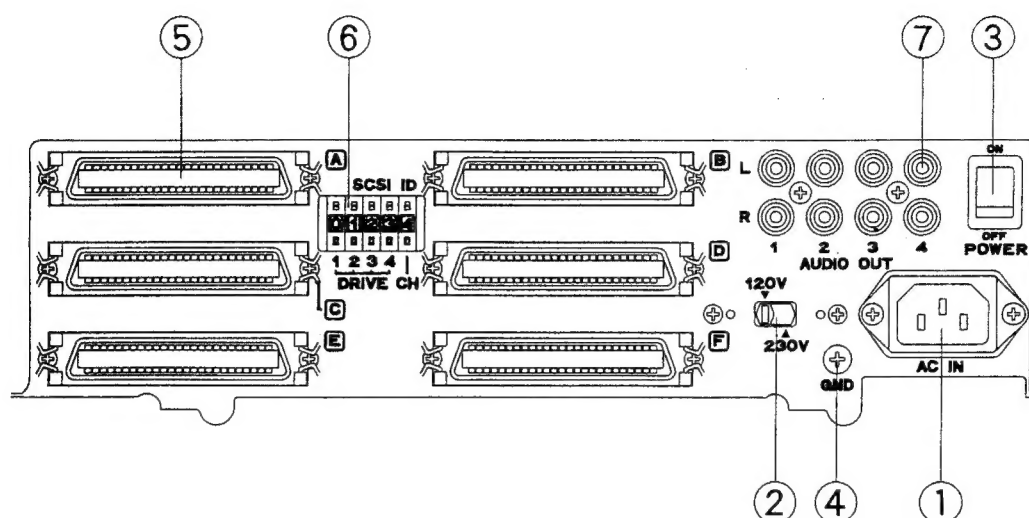


## [ Door fully open ]



## [ Disc magazine ]



**[Real Panel]****① Power connection**

Connect the power cord. (Make sure you use the accessory power cord.) The unit comes with a converter plug, which should be used to suit the shape of the power outlet.

**② Voltage selector switch**

(Not equipped on the AC100V exclusive-use model)

When this unit is used in a 100V – 120V region, set the switch to 120V, and when it is used in a 220V – 240V region, set the switch to 230V.

**③ Power switch**

(On 100V specific model only. See separate item for switchable voltage model.)

Turns power to the unit ON/OFF.

**④ GND terminal**

Use this terminal to ground the unit.

**⑤ Interface connector**

This is an amphenol 50P connector for SCSI. The built-in changer controller and 2 CD-ROM drives are connected by a daisy-chain between connectors A and B. Connectors C and F are spare connectors.

**⑥ SCSI ID switch**

Sets the changer controller and CD-ROM drive SCSI ID.

**⑦ Audio output terminal**

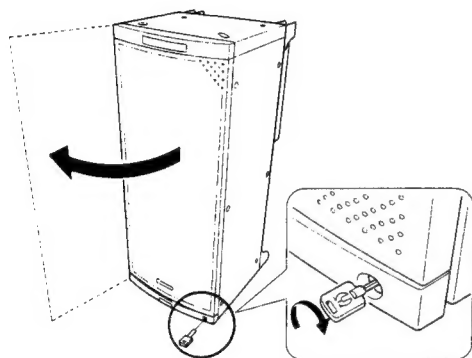
Outputs the digital audio compact disc audio.

# INSTALLING/REMOVING THE DISC MAGAZINE

Be sure to follow the installation and removal sequence specified by the system application being used when mounting and removing disc magazines. Note that the changer's front door can be opened at any time if unlocked by the key. However, careless opening of the door or the use of improper procedures for mounting and removing magazines can cause damage to the changer.

**1. Insert the accessory door key into the keyhole and turn it about 150 ° clockwise.**

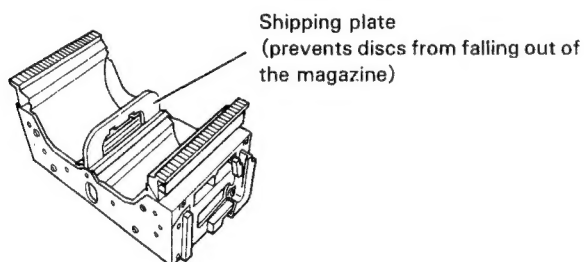
**2. Pull the door toward you.**



**3. Remove the disc magazine from its package.**

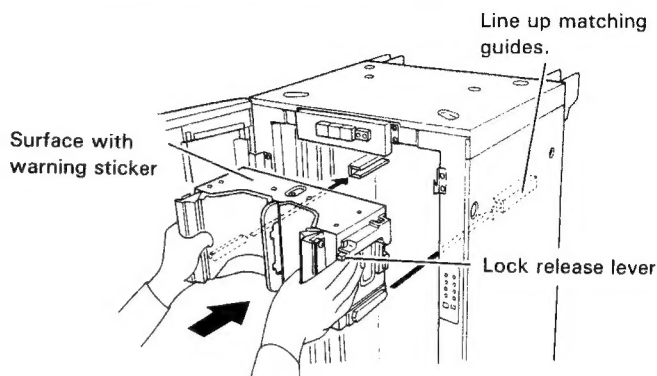
**NOTE:**

When moving or transporting the changer, remove the disc magazine and put it into its package before moving or transporting it. For this reason the package should be kept in a safe place.



**4. Insert the disc magazine into the changer.**

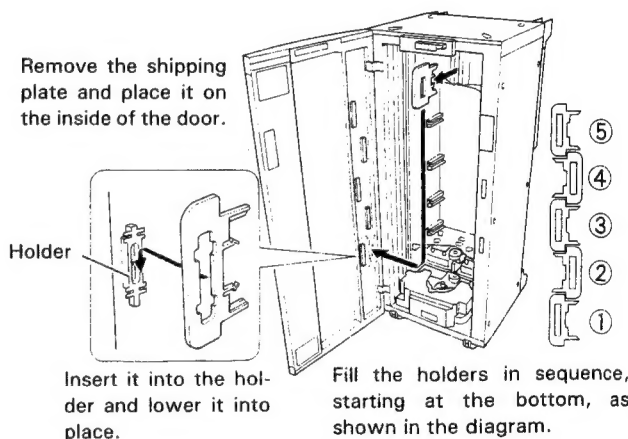
- Line up the disc magazine guides with both changer guides, and insert the disc magazine into place.



- Press down on the lock release lever firmly until it clicks into place.

**5. Remove the shipping plate and insert it into the holder on the inside of the door.**

- This is to prevent loss of the shipping plate.
- The changer will not operate if the shipping plate is not removed from the disc magazine.



**6. Repeat Steps 3 ~ 5 and install disc magazines in all 5 levels.**

**WARNING:**

- When inserting a disc magazine into the changer, make sure the magazine or your hand does not get caught in the cables connecting the elevator and the unit.
- Firmly push the disc magazine all the way into place. Operating the unit with a disc magazine partially installed will result in equipment damage.
- As a rule, all magazines should be mounted. If a magazine is not mounted, magazines above the vacant position cannot be accessed.

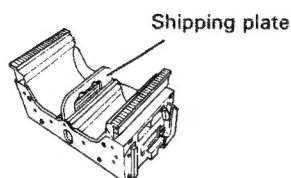


## INSERTING DISCS INTO THE DISC MAGAZINE

### 1. Remove the disc magazine from its package.

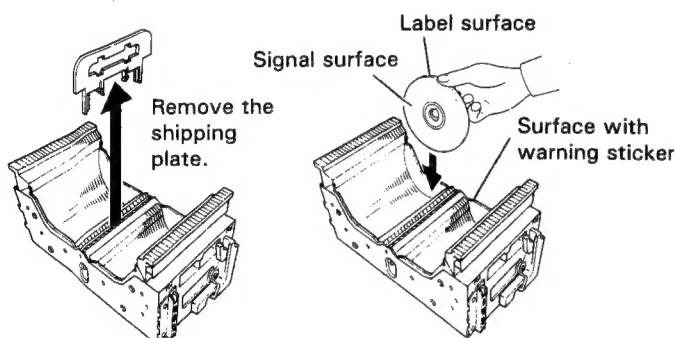
#### NOTE:

When moving or transporting the changer, remove the disc magazine and put it into its package before moving or transporting it. For this reason the package should be kept in a safe place.

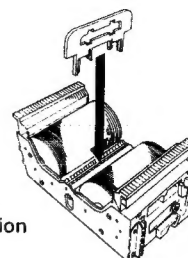


### 2. Remove the green shipping plate located in the center of the disc magazine, and put in the discs.

- Both sides of the disc magazine are numbered; insert the discs according to these numbers.
- Insert the discs so that the label surface is at the side of the disc magazine with the warning sticker attached to it.



### 3. Set the green shipping plate in the disc magazine.



#### NOTE:

Do not transport the disc magazine with discs inside it. If the disc magazine must be transported with discs inside it, make sure the disc magazine is transported in its package. Even so, do not transport or store the disc magazine in this condition for a long time.

### 4. Mount the disc magazine in the changer as described in "Installing/Removing the Disc Magazine" on Page 8.

- Firmly push the disc magazine all the way into place and confirm that it has locked in position.
- Do not forget to remove the shipping plate from the disc magazine and store it on the inside of the door.

#### WARNING:

Be sure to follow the installation and removal procedures specified by the system application being used when inserting and removing discs. This is because there are no disc sensors individual disc storage locations, so disc presence must be managed in memory. Also, to avoid mis-insertion, do not directly insert or remove discs while the magazine is mounted in the changer. Mount and remove magazines only when the elevator is at the bottom position. Failure to conform with the above may result in physical damage to discs.

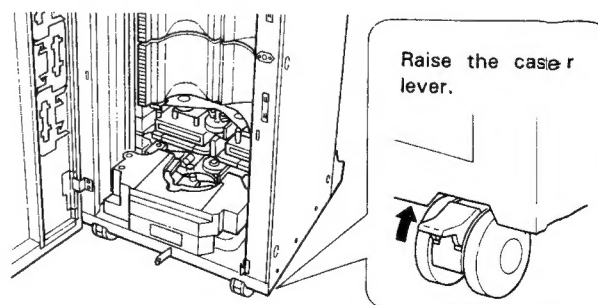
## MOVING OR TRANSPORTING THE UNIT

When moving the unit, remove the disc magazine from the changer without fail. If it is not removed and the changer is moved, the internal parts of the changer may be damaged. Put the removed disc magazine into its package.

### 1. Turn the power OFF, open the door, and unlock the casters.

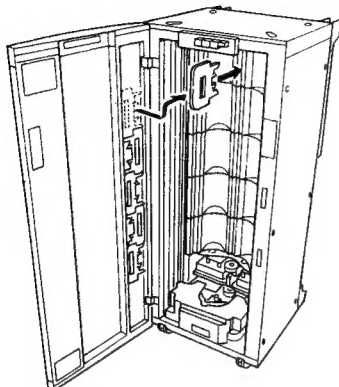
- Power switch location depends on the model. See page 6.
- If the elevator is not in the lowest position or if the door is opened during the course of this operation, turn the power ON and return the discs to their prescribed location in the magazine, or wait until the elevator is stopped at its lowest position by initialization and then turn the power OFF.

- Confirm that the red plate on the elevator is closed (it is visible) and then turn the power OFF. If the red plate is opened (it cannot be seen), turn the power OFF with the door closed.



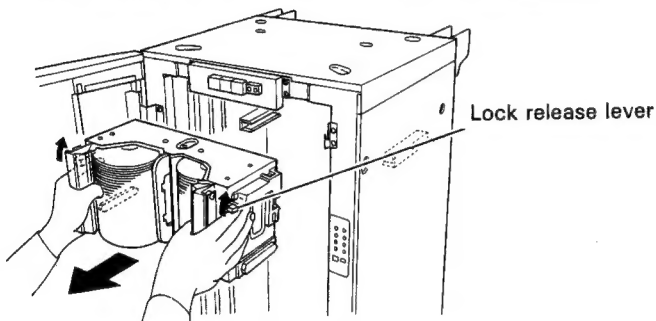
## MOVING OR TRANSPORTING THE UNIT

2. Remove the shipping plate from the inside of the door and set it in the disc magazine.



3. Remove the disc magazine.

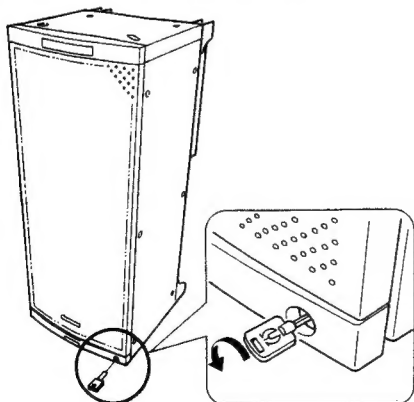
- Hold on to the lock release levers on the left and right sides and pull the disc magazine out in a level position.



4. Insert the disc magazine and shipping plate in their previously stored packages.

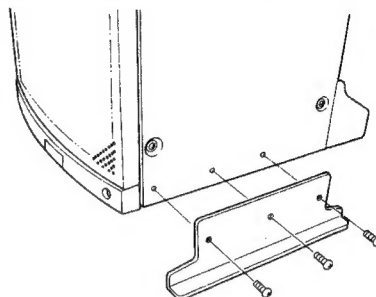
5. Close the door.

- Make sure you lock the door.
- Insert the door key into the keyhole and turn it about 150 ° counterclockwise.  
(Confirm that the door does not open.)



6. Remove the rear connections and pull the power plug out of the outlet.

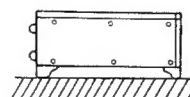
7. Remove the support plates on both sides.



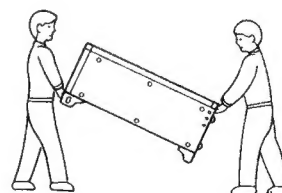
- Do not fail to carry out the above procedure before moving the unit.

### Strictly observe the following instructions.

- Do not cause impact to or knock over a disc magazine with discs in it.
- When moving the unit on its casters, move it gently and with extreme caution, avoiding impact and vibration to the unit due to rough floor surfaces or different levels.
- The unit can be transported on its side, provided that the discs and disc magazines have been removed. Make sure, however, that the rear of the unit is down.



- Do not drop or cause impact to the unit.
- Do not transport the unit over a long period of time.
- Make sure at least 2 persons carry the unit.



## TROUBLESHOOTING

If you think that some trouble has occurred, please check according to the following table. Imperfect installation, a defective disc, lacking familiarity with correct operation, etc. can make it appear as if trouble had occurred. In many cases, the cause is a simple error or a misunderstanding which can be corrected by some simple measures. If checking of the following items will not get rid of the trouble, please contact a PIONEER authorized service center or your dealer.

Symptom	Cause	Countermeasure
The door does not open.	<ul style="list-style-type: none"> <li>● The door is locked. (Door lock or padlock)</li> </ul>	<ul style="list-style-type: none"> <li>● Use the door key to unlock the door.</li> <li>● Remove the padlock at the lower part of the door.</li> </ul>
No operation. The green signal lamp does not light.	<ul style="list-style-type: none"> <li>● The power is not switched on.</li> </ul>	<ul style="list-style-type: none"> <li>● Connect the power cord to a receptacle.</li> <li>● Switch on the power switch at the rear.</li> </ul>
No operation.	<ul style="list-style-type: none"> <li>● Imperfect disc magazine installation.</li> <li>● The shipping plate has been left inserted in the magazine.</li> <li>● The door has been opened during operation.</li> </ul>	<ul style="list-style-type: none"> <li>● Insert the magazine all the way into place and confirm that it has locked in position.</li> <li>● Remove the shipping plate from the magazine and store it at the rear of the door.</li> <li>● Close the door.</li> </ul>
No data or sound output.	<ul style="list-style-type: none"> <li>● Formation of dew.</li> </ul>	<ul style="list-style-type: none"> <li>● Switch off the power, leave the unit standing for one to two hours, and then use it.</li> </ul>

Switch on the power supply of this unit again after taking the above countermeasures. If the unit still does not operate, please contact a PIONEER authorized service center or your dealer.

### In Regard to the Formation of Dew

In winter, when this unit is brought from the outdoors into a heated room, or when the room in which the unit is kept is heated rapidly, dew will form on the operation parts when the door is opened, and operation will not be possible. Especially formation of dew on the lens of the drive part or on the discs makes signal reading by laser light impossible.

When heating the room in which the unit is installed, raise the temperature gradually.

#### When Dew has Formed

When dew has formed, leave the unit for 1 to 2 hours (depending on the amount of dew) at room temperature with the power switched off and the door open. Then the dew will evaporate and operation again will be possible.

Dew also may form in summer when the unit is exposed directly to the air from a cooler or an air conditioning unit. In such a case, please change the place of installation.

# SPECIFICATIONS

## General

System .....	CD-ROM changer
Disc .....	12cm/5-inch CD-ROM disc 12cm/5-inch CD audio disc
Power requirements .....	AC 120 V/230 V (switchable). 50/60 Hz (Japan model : AC 100 V. 50/60 Hz)
Power consumption .....	60 W
Weight (with disc magazine, without discs) .....	77 kg 167 lb 9 oz
Dimensions .....	453 (W) × 507 (D) × 1159 (H) mm 17-27/32 (W) × 19-31/32 (D) × 45-5/8 in
Operating temperature .....	+ 5° C ~ + 40° C + 41° F ~ + 104° F
Operating humidity .....	10 % - 80 % (no condensation)
Storage temperature .....	- 20° C ~ + 50° C + 4° F ~ + 122° F

## Input/output

Interface .....	conforming to SCSI 2
Audio output .....	L/R × 4

## Functions

Disc storage (12 cm/5-inch discs) .....	500 discs
Removable disc magazines .....	5 magazines which hold 100 discs each can be stored.
Power switch .....	Power ON/OFF switch at the rear of the unit

## Accessories

Disc magazine .....	5
Shipping plate .....	5
Power cord .....	1
Conversion plug .....	1
SCSI bus terminator .....	1
Door key (for front door locking) .....	2
Support panel .....	2
Support panel mounting screws .....	6
Follow-up card (except for Japan model) .....	1
Service network sheet (Japan model only) .....	1
Warranty card (Japan model only) .....	1

## NOTE:

- The disc magazines are packed separately from the changer body.
- Specifications and design subject to possible modifications without notice, due to oimprovements.

## Maintenance

In order to ensure safe and proper functioning of this unit, we recommend regular maintenance. Extended service life can be expected if maintained properly.

- Always use our service for the installation when a CD-ROM drive is to be added to this unit.